

CHAPTER 5.

Availability Analysis

Keen Independent analyzed the availability of minority- and women-owned business enterprises (MBE/WBEs) that are ready, willing and able to perform ADOT and local agency prime contracts and subcontracts. ADOT can use availability results and other information from the study as it makes decisions about its future operation of the Federal DBE Program.

Chapter 5 describes the study team's availability analysis in eight parts:

- A. Purpose of the availability analysis;
- B. Definitions of MBEs, WBEs, certified DBEs, potential DBEs and majority-owned businesses;
- C. Information collected about potentially available businesses;
- D. Businesses included in the availability database;
- E. MBE/WBE availability calculations on a contract-by-contract basis;
- F. Availability results; and
- G. Base figure for ADOT's overall DBE goal for FHWA-funded contracts.

Appendix D provides supporting information.

A. Purpose of the Availability Analysis

Keen Independent examined the availability of MBE/WBEs for transportation contracts to develop:

- 1. A benchmark used in the disparity analysis; and
- 2. The base figure for ADOT's overall DBE goals for FHWA-, FTA- and FAA-funded contracts.

1. Benchmark in the disparity analysis. The 2015 Disparity Study will compare ADOT's utilization of MBE/WBEs against an availability benchmark.

- The disparity analysis will compare the percentage of ADOT contract dollars that went to minority- and women-owned firms (MBE/WBE "utilization") to the percentage of dollars that might be expected to go to those businesses based on their availability for specific types and sizes of ADOT contracts (MBE/WBE "availability").
- Comparisons between utilization and availability identify whether any MBE/WBE groups were underutilized based on their availability for ADOT work.

2. Base figure for ADOT's overall DBE goals. Part of ADOT's operation of the Federal DBE Program is establishing an overall goal for DBE participation in its FHWA-, FTA- and FAA-funded contracts. The 2014 Availability Study focuses on the three-year goal for FHWA-funded contracts. The 2015 Disparity Study will examine overall goals for FTA- and FAA-funded contracts.

- The process for calculating DBE availability for an overall DBE goal is the same as for determining MBE/WBE availability in a disparity analysis.¹
- However, the base figure calculation only includes current DBEs and those MBE/WBEs that appear that they would be eligible for DBE certification ("potential DBEs"). Therefore, businesses that have been denied certification, have been decertified or have graduated from the DBE Program should not be counted in the base figure.

This process follows guidance in the Final Rule effective February 28, 2011 and the United States Department of Transportation's (USDOT's) "Tips for Goal-Setting" that explain that minority- and women-owned firms that are not currently certified as DBEs but that could be DBE-certified should be counted as DBEs in the base figure calculation.

The balance of Chapter 5 explains each step in determining the availability benchmarks and the base figure for ADOT's overall DBE goal, beginning with definitions of terms.

B. Definitions of MBEs, WBEs, Certified DBEs, Potential DBEs and Majority-owned Businesses

The following definitions of terms based on ownership and certification status are useful background to the availability analysis.

MBE/WBEs. The availability benchmark and the base figure analyses use the same definitions of minority- and women-owned firms (MBE/WBEs), as do other components of the 2014 Availability Study and the 2015 Disparity Study.

Race, ethnic and gender groups. As specified in 49 Code of Federal Regulations (CFR) Part 26, the study team separately examined utilization, availability and disparity results for businesses owned by:

- African Americans;
- Asian-Pacific Americans;
- Subcontinent Asian Americans;
- Hispanic Americans;
- Native Americans; and
- Non-Hispanic white women.

¹ 49 CFR Section 26.45 (c).

Note that “majority-owned businesses” refer to businesses that are not minority- or women-owned.

Firms owned by minority women. Businesses owned by minority women are included with the results for each minority group. “WBEs” in this report refers to non-Hispanic white women-owned businesses. This definition of WBEs gives ADOT information to answer questions that may arise pertaining to the utilization of non-Hispanic white women-owned businesses, such as whether the work that goes to MBE/WBEs disproportionately goes to businesses owned by non-Hispanic white women. Keen Independent’s approach is consistent with court decisions that have considered this issue.

All MBE/WBEs, not only certified DBEs. When availability results are used as a benchmark in the disparity analysis, all minority- and women-owned firms are counted as such whether or not they are certified as DBEs or as MBEs or WBEs. For the following reasons, researching whether race- or gender-based discrimination has affected the participation of MBE/WBEs in contracting is properly analyzed based on the race, ethnicity and gender of business ownership and not on DBE certification status.

- Analyzing the availability and utilization of minority- and women-owned firms regardless of DBE/MBE/WBE certification status allows one to assess whether there are disparities affecting *all* MBE/WBEs and not just certified DBEs. Businesses may be discriminated against because of the race or gender of their owners regardless of whether they have successfully applied for DBE certification.
- Moreover, the study team’s analyses of whether MBE/WBEs face disadvantages include the most successful, highest-revenue MBE/WBEs. A disparity study that focuses only on MBE/WBEs that are, or could be, DBE-certified would improperly compare outcomes for “economically disadvantaged” businesses with all other businesses, including both non-Hispanic white male-owned businesses and relatively successful MBE/WBEs.² Limiting the analyses to a group of businesses that only includes low-revenue companies would have inappropriately made it more likely for the study team to observe disparities for MBE/WBE groups.³

The courts that have reviewed disparity studies have accepted analyses based on the race, ethnicity and gender of business ownership rather than on DBE certification status.

² In addition, 49 CFR Part 26 allows certification of white male-owned businesses as DBEs. Thus, disparity analyses based on certified DBEs might not purely be an analysis of disparities based on race/ethnicity and gender.

³ An analogous situation concerns analysis of possible wage discrimination. A disparity analysis that would compare wages of minority employees to wages of all employees should include both low- and high-wage minorities in the statistics for minority employees. If the analysis removed high-wage minorities from the analyses, any comparison of wages between minorities and non-minorities would more likely show disparities in wage levels.

Certified DBEs. Certified DBEs are businesses that are certified as such through ADOT, the City of Phoenix or the City of Tucson (the three certifying agencies in Arizona), which means that they are businesses that:

- Are owned and controlled by one or more individuals who are presumed to be both socially and economically disadvantaged according to 49 CFR Part 26;⁴ and
- Have met the gross revenue and personal net worth requirements described in 49 CFR Part 26.

Potential DBEs. Potential DBEs are MBE/WBEs that are DBE-certified or appear that they could be DBE-certified based on revenue requirements described in 49 CFR Section 26.65 (regardless of actual certification). Potential DBEs do not include businesses that have been decertified or had graduated from the DBE Program. The study team examined the availability of potential DBEs as part of helping ADOT calculate the base figure of its overall DBE goal. Figure 5-1 provides further explanation of Keen Independent's definition of potential DBEs.

Majority-owned businesses. Majority-owned businesses are businesses that are not owned by minorities or women (i.e., businesses owned by non-Hispanic white males).

- In the utilization and availability analyses, the study team coded each business as minority-, women-, or majority-owned.
- Majority-owned businesses included any non-Hispanic white male-owned businesses that were certified as DBEs.⁵

Figure 5-1.
Definition of potential DBEs

To help ADOT calculate its overall DBE goal, Keen Independent did not include the following types of MBE/WBEs in its definition of potential DBEs:

- MBE/WBEs that had graduated from the DBE Program and not been recertified;
- MBE/WBEs that are not currently DBE-certified that had applied for certification and had been denied; and
- MBE/WBEs not currently DBE-certified that appear to have exceeded the three-year average annual revenue limits for DBE certification.

At the time of this study, the overall revenue limit for DBE certification was \$22,410,000 based on a three-year average of gross receipts. There were lower revenue limits for specific subindustries according to the U.S. Small Business Administration (SBA) small business size standards. Some MBE/WBEs appeared to have exceeded either the \$22,410,000 or the subindustry revenue limits based on information that they provided as part of availability interviews. The revenue categories used to classify firms reflect recent changes to the Table of Small Business Size Standards published by the SBA.

Business owners must also meet USDOT personal net worth limits for their businesses to qualify for DBE certification. Because determining personal net worth of business owners is complex and requires sensitive information about personal finances; this information was not collected and examined as part of the availability telephone interviews. Personal net worth was only a factor in the base figure calculations when a firm had graduated or been denied certification based on personal net worth that exceeded certification limits.

⁴ The Federal DBE Program specifies that African Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, Subcontinent Asian Americans, women of any race or ethnicity, and any additional groups whose members are designated as socially and economically disadvantaged by the Small Business Administration are presumed to be disadvantaged.

⁵ Keen Independent identified one DBE-certified white male-owned firm in Arizona in the availability interviews.

All other businesses. The study team categorized businesses that were not “potential DBEs” as “all other businesses” in the base figure analysis. All other businesses included MBE/WBEs that were not currently DBE-certified and that:

- Had graduated from the DBE Program; or
- Had been denied DBE certification; or
- Appeared to exceed revenue limits in 49 CFR Section 26.65.

All other businesses also included majority-owned businesses that were not DBE-certified.

Keen Independent obtained information from three certifying agencies — ADOT, the City of Tucson and the City of Phoenix — to identify firms that, in recent years, had graduated from the DBE Program or had been denied DBE certification (and had not been recertified).

C. Information Collected about Potentially Available Businesses

Keen Independent’s availability analysis focused on firms with Arizona locations that work in subindustries related to ADOT transportation-related construction and engineering contracts.

Based on review of ADOT and LPA Program prime contracts and subcontracts during the study period, the study team identified specific subindustries for inclusion in the availability analysis. Keen Independent contacted businesses within those subindustries by telephone to collect information about their availability for specific types, sizes and locations of ADOT and local agency prime contracts and subcontracts.

Keen Independent’s method of examining availability is sometimes referred to as a “custom census” and has been accepted in federal court. Figure 5-2 summarizes characteristics of Keen Independent’s custom census approach to examining availability.

Figure 5-2.
Summary of the strengths of
Keen Independent’s “custom census”
approach

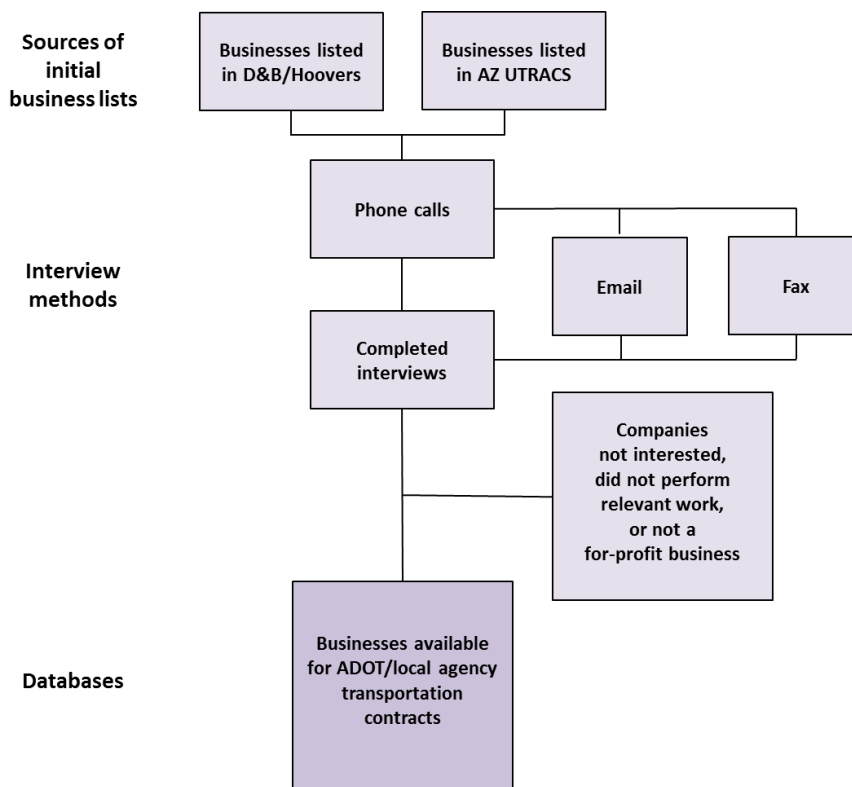
Federal courts have reviewed and upheld “custom census” approaches to examining availability. Compared with some other previous court-reviewed custom census approaches, Keen Independent added several layers of screening to determine which businesses are potentially available for work in the transportation contracting industry in Arizona.

For example, the Keen Independent analysis included discussions with businesses about interest in ADOT and local government work, contract role and geographic locations of their work — items not included in some of the previous court-reviewed custom census approaches. Keen Independent also analyzed the sizes of contracts and subcontracts on which businesses have bid on or performed in the past (referred to as “bid capacity” in this analysis).

Overview of availability interviews. The study team conducted telephone interviews with business owners and managers to identify businesses that are potentially available for ADOT and local agency transportation prime contracts and subcontracts.⁶ Figure 5-3 summarizes the process for identifying businesses, contacting them and completing the interviews.

Keen Independent began by compiling lists of business establishments that: (a) previously identified themselves to ADOT as interested in learning about future work (by listing themselves on AZ UTRACS); or (b) Dun & Bradstreet/Hoovers identified in certain transportation contracting-related subindustries in Arizona.⁷

Figure 5-3.
Availability interview process



⁶ The study team offered business representatives the option of completing interviews via fax or email if they preferred not to complete interviews via telephone.

⁷ D&B's Hoover's database is accepted as the most comprehensive and complete source of business listings in the nation. Keen Independent collected information about all business establishments listed under 8-digit work specialization codes (as developed by D&B) that were most related to the transportation contracts that ADOT awarded during the study period.

Telephone interviews. Figure 5-3 outlines the process Keen Independent used to complete interviews with businesses possibly available for ADOT and local agency transportation-related work.

- The study team contacted firms by telephone to ask them to participate in the interviews (identifying ADOT as the organization requesting the information). Firms indicating over the phone that they were not interested or not involved in transportation contracting work were not asked to complete the other interview questions. Interviews began in April 2014 and were completed in June 2014.
- Some firms completed interviews when first contacted. For firms not immediately responding, the study team executed intensive follow-up over many weeks.
- When a business was unable to conduct the interview in English, the study team called back with a bilingual interviewer (English/Spanish) to collect basic information about the company and offer alternative means of completing the interview.
- Businesses could also learn about the availability interviews or complete the interviews via other methods such as:
 - Fax or email; and
 - Through the disparity study website that was maintained throughout the project. (Interested companies that learned about the interviews through the website or other means could contact the team to schedule a telephone interview.)

Information collected in availability interviews. Interview questions covered many topics about each organization, including:

- Status as a private business (as opposed to a public agency or not-for-profit organization);
- Status as a subsidiary or branch of another company;
- Types of transportation contract work performed, from asphalt paving to temporary traffic control for construction and from design engineering to surveying for engineering-related work (Figure 3-4 in Chapter 3 provides a list of work categories included in the interviews);
- Qualifications and interest in performing transportation-related work for ADOT and local agencies in Arizona;
- Qualifications and interest in performing transportation-related work as a prime contractor or as a subcontractor (or trucking company or materials supplier);
- Past work in Arizona as a prime contractor or as a subcontractor, trucker or supplier (note that “prime consultant” and “subconsultant” were the terms used in the interviews of professional services companies);
- Ability to work in specific geographic regions (Southern Arizona, Central Arizona and/or Northern Arizona);

- Largest prime contract or subcontract bid on or performed in Arizona in the previous seven years;
- Year of establishment; and
- Race/ethnicity and gender of ownership.

Appendix D provides an availability interview instrument.

Screening of firms for the availability database. The study team asked business owners and managers several questions concerning the types of work that their companies performed; their past bidding history; and their qualifications and interest in working on contracts for ADOT and local government agencies, among other topics. Keen Independent considered businesses to be potentially available for ADOT transportation prime contracts or subcontracts if they reported possessing *all* of the following characteristics:

- a. Being a private business (as opposed to a public agency or not-for-profit organization);
- b. Performing work relevant to transportation contracting;
- c. Having bid on or performed transportation-related prime contracts or subcontracts in Arizona in the previous seven years; and
- d. Reporting qualifications for and interest in work for ADOT and/or for local governments.⁸

D. Businesses Included in the Availability Database

After completing interviews with 4,284 Arizona businesses, the study team developed a database of information about businesses that are potentially available for ADOT transportation contracting work. The study team used the availability database to produce availability benchmarks to:

- Determine whether there were any disparities in ADOT and local agency utilization of MBE/WBEs during the study period; and
- Help calculate a base figure for ADOT's overall DBE goals for FHWA, FTA and FAA contracts.

Data from the availability interviews allowed Keen Independent to develop a representative depiction of businesses that are qualified and interested in the highest dollar volume areas of ADOT and local agency transportation-related work, but it should not be considered an exhaustive list of every business that could potentially participate in ADOT and local agency contracts. Appendix D provides a detailed discussion about why the database should not be considered an exhaustive list of potentially available businesses.

⁸ For both ADOT and for local agency work, separate interview questions were asked about prime contract work and subcontract work.

Figure 5-4 presents the number of businesses that the study team included in the availability database for each racial/ethnic and gender group. The study team’s research identified 1,072 businesses reporting that they were available for specific transportation contracts that ADOT and local agencies awarded during the study period. Of those businesses 415 (39%) were MBEs or WBEs.

Because results are based on a simple count of firms with no analysis of availability for specific ADOT contracts, they only reflect the first step in the availability analysis.

Figure 5-4.
Number of businesses included in the availability database

Note:

Numbers rounded to nearest tenth of 1 percent. Percentages may not add to totals due to rounding.

Source:

Keen Independent availability analysis.

Race/ethnicity and gender	Number of firms	Percent of firms
African American-owned	25	2.3 %
Asian-Pacific American-owned	15	1.4
Subcontinent Asian American-owned	16	1.5
Hispanic American-owned	153	14.3
Native American-owned	<u>33</u>	<u>3.1</u>
Total MBE	242	22.6 %
WBE (white women-owned)	<u>173</u>	<u>16.1</u>
Total MBE/WBE	415	38.7 %
Total majority-owned firms	<u>657</u>	<u>61.3</u>
Total firms	1,072	100.0 %

E. MBE/WBE Availability Calculations on a Contract-by-Contract Basis

Keen Independent analyzed information from the availability database to develop dollar-weighted availability estimates for use as a benchmark in the disparity analysis and in helping ADOT set its overall DBE goals for FHWA-, FTA- and FAA-funded contracts.

- Dollar-weighted availability estimates represent the percentage of ADOT transportation contracting dollars that MBE/WBEs might be expected to receive based on their availability for specific types and sizes of ADOT transportation-related construction and engineering prime contracts and subcontracts.
- Keen Independent’s approach to calculating availability was a bottom up, contract-by-contract process of “matching” available firms to specific prime contracts and subcontracts.

Steps to calculating availability. Only a portion of the businesses in the availability database were considered potentially available for any given ADOT construction or engineering prime contract or subcontract (referred to collectively as “contract elements”). The study team first examined the characteristics of each specific contract element, including type of work, location of work, contract size and contract date. The study team then identified businesses in the availability database that perform work of that type, in that location, of that size, in that role (i.e., prime contractor or subcontractor), and that were in business in the year that the contract element was awarded.

Steps to the availability calculations. The study team identified the specific characteristics of each of the 11,398 ADOT and local agency prime contracts and subcontracts included in the utilization analysis and then took the following steps to calculate availability for each contract element:

1. For each contract element, the study team identified businesses in the availability database that reported that they:
 - Are qualified and interested in performing transportation-related work in that particular role, for that specific type of work, for that particular type of agency (ADOT or local agencies) or had actually performed work in that role based on contract data for the study period;
 - Indicated in the interview that they had performed work in the particular role (prime or sub) in Arizona within the past seven years (or had done so based on contract data for the study period);
 - Are able to do work in that geographic location (or had done so based on contract data for the study period);
 - Had bid on or performed work of that size in Arizona in the past seven years (or had done so based on contract data for the study period); and
 - Were in business in the year that the contract or task order was awarded.
2. For the specific contract element, the study team then counted the number of MBEs (by race/ethnicity), WBEs and majority-owned businesses among all businesses in the availability database that met the criteria specified in Step 1.
3. The study team translated the numeric availability of businesses for the contract element into percentage availability (as described in Figure 5-5).

The study team repeated those steps for each contract element examined in the Availability Study. The study team multiplied the percentage availability for each contract element by the dollars associated with the contract element, added results across all contract elements, and divided by the total dollars for all contract elements. The result was a dollar-weighted estimate of overall availability of MBE/WBEs and estimates of availability for each MBE/WBE group. Figure 5-5 provides an example of how the study team calculated availability for a specific subcontract in the study period.

Figure 5-5.
Example of an availability calculation

One of the subcontracts examined was for landscaping (\$10,500) on a 2013 Federal Highway Administration-funded contract for a local agency in Central Arizona. To determine the number of MBE/WBEs and majority-owned firms available for that subcontract, the study team identified businesses in the availability database that:

- a. Were in business in 2013;
- b. Indicated that they performed landscaping on transportation-related projects;
- c. Reported working or bidding on subcontracts in Arizona in the past seven years;
- d. Reported bidding on work of similar or greater size in the past seven years;
- e. Reported ability to perform work in Central Arizona; and
- f. Reported qualifications and interest in working as a subcontractor on local government transportation projects.

There were 142 businesses in the availability database that met those criteria. Of those businesses, 63 were MBEs or WBEs. Therefore, MBE/WBE availability for the subcontract was 44 percent (i.e., $63/142 = 44\%$).

Special considerations for supply contracts. When calculating availability for a particular type of materials supplies, Keen Independent counted as available all firms supplying those materials that reported qualifications and interest in that work for ADOT (or for local agencies when it was a local agency contract) and indicated that they could provide supplies in the pertinent region of the state. Bid capacity was not considered in these calculations.

Improvements on a simple “head count” of businesses. Keen Independent used a “custom census” approach to calculating MBE/WBE availability for ADOT and local agency work rather than using a simple “head count” of MBE/WBEs (i.e., simply calculating the percentage of all Arizona transportation contracting businesses that are minority- or women-owned). Using a custom census approach typically results in lower availability estimates for MBEs and WBEs than a headcount approach due in large part to Keen Independent’s consideration of “bid capacity” in measuring availability and because of dollar-weighting availability results for each contract element (a large prime contract has a greater weight in calculating overall availability than a small subcontract). The largest contracts that MBE/WBEs have bid on or performed in Arizona tend to be smaller than those of other businesses, as discussed in Appendix H. Therefore, MBE/WBEs are less likely to be identified as available for the largest prime contracts and subcontracts.

There are several important ways in which Keen Independent’s custom census approach to measuring availability is more precise than completing a simple head count approach.

Keen Independent’s approach accounts for type of work. USDOT suggests calculating availability based on businesses’ abilities to perform specific types of work. USDOT gives the following example in Part II F of “Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program”:

For instance, if 90 percent of your contract dollars will be spent on heavy construction and 10 percent on trucking, you should weight your calculation of the relative availability of firms by the same percentages.⁹

The study team took type of work into account by examining 36 different subindustries related to construction and engineering as part of estimating availability for ADOT and local agency work.

Keen Independent’s approach accounts for qualifications and interest in transportation-related prime contract and subcontract work. The study team collected information on whether businesses are qualified and interested in working as prime contractors, subcontractors, or both on ADOT and local agency transportation work, in addition to the consideration of several other factors related to prime contracts and subcontracts (e.g., contract types, sizes and locations):

- Only businesses that reported being qualified for and interested in working as prime contractors were counted as available for prime contracts (or included because contract data for ADOT or local agencies indicated that they had prime contracts in the past seven years).

⁹ USDOT. Tips for Goal-Setting in the Federal Disadvantaged Enterprise (DBE) Program as updated June 25, 2013 <http://www.dot.gov/osdbu/disadvantaged-business-enterprise/tips-goal-setting-disadvantaged-business-enterprise>.

- Only businesses that reported being qualified for and interested in working as subcontractors were counted as available for subcontracts (or included because contract data for ADOT or local agencies indicated that they subcontracts in the past seven years).
- Businesses that reported being qualified for and interested in working as both prime contractors and subcontractors were counted as available for both prime contracts and subcontracts.

Keen Independent’s approach accounts for the size of prime contracts and subcontracts. The study team considered the size — in terms of dollar value — of the prime contracts and subcontracts that a business bid on or received in the previous seven years (i.e., bid capacity) when determining whether to count that business as available for a particular contract element. When counting available businesses for a particular prime contract or subcontract, the study team considered whether businesses had previously bid on or received at least one contract of an equivalent or greater dollar value in Arizona in the previous seven years, based on the most inclusive information from survey results and analysis of past ADOT and local agency prime contracts and subcontracts.

Keen Independent’s approach is consistent with many recent, key court decisions that have found relative capacity measures to be important to measuring availability (e.g., *Associated General Contractors of America, San Diego Chapter, Inc. v. California Department of Transportation, et al.*; *Western States Paving Company v. Washington State DOT*; *Rothe Development Corp. v. U.S. Department of Defense*,¹⁰ and *Engineering Contractors Association of S. Fla. Inc. vs. Metro Dade County*¹¹).

Keen Independent’s approach accounts for the geographic location of the work. The study team determined the location where work was performed for ADOT and local agency contracts (Southern, Central or Northern Arizona).

Keen Independent’s approach generates dollar-weighted results. Keen Independent examined availability on a contract-by-contract basis and then dollar-weighted the results for different sets of contract elements. Thus, the results of relatively large contract elements contributed more to overall availability estimates than those of relatively small contract elements. This approach is consistent with USDOT’s “Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program,” which suggests a dollar-weighted approach to calculating availability.

F. Availability Results

Keen Independent used the custom census approach described above to estimate the availability of MBE/WBEs and majority-owned businesses for 11,398 FHWA-funded construction and engineering prime contracts and subcontracts that ADOT and local agencies awarded during the study period.

Figure 5-6 presents overall dollar-weighted availability estimates by MBE/WBE group for those contracts. Overall, MBE/WBE availability for FHWA-funded contracts is 16.66 percent. This result is lower than the percentage of availability firms that are MBE/WBE (38.7%) in Figure 5-4. Dollar-weighted availability was highest for white women-owned firms (6.94%), Hispanic American-owned

¹⁰ *Rothe Development Corp. v. U.S. Department of Defense*, 545 F.3d 1023 (Fed. Cir. 2008).

¹¹ *Engineering Contractors Association of S. Fla. Inc. vs. Metro Dade County*, 943 F. Supp. 1546 (S.D. Fla. 1996).

businesses (5.29%) and Native American-owned companies (2.17%). Availability was 1.02 percent for African American-owned businesses and less than 1 percent for Subcontinent Asian American-owned firms (0.92%) and Asian-Pacific American-owned companies (0.32%).

Note that these dollar-weighted availability estimates are for FHWA-funded contracts during the study period, which will differ from availability estimates for FTA-, FAA- and state-funded contracts. Availability estimates for those contracts may be higher or lower based on the types, sizes and locations of those prime contracts and subcontracts.

Figure 5-6.
Overall dollar-weighted availability estimates by MBE/WBEs for FHWA-funded contracts, July 2007-June 2013

Note:

Numbers may not add to totals due to rounding.

Source:

Keen Independent availability analysis.

Race/ethnicity and gender	Dollar-weighted availability
African American-owned	1.02 %
Asian-Pacific American-owned	0.32
Subcontinent Asian American-owned	0.92
Hispanic American-owned	5.29
Native American-owned	<u>2.17</u>
Total MBE	9.72 %
WBE (white women-owned)	<u>6.94</u>
Total MBE/WBE	16.66 %

G. Base Figure for ADOT's Overall DBE Goal for FHWA-funded Contracts

Establishing a base figure is the first step in calculating an overall goal for DBE participation in ADOT's FHWA-funded transportation contracts. Keen Independent calculated the base figure using the same availability database and approach described above. For the base figure, calculations focus on potential DBEs (including currently certified DBEs) and only included FHWA-funded prime contracts and subcontracts. Keen Independent's approach to calculating ADOT's base figure is consistent with:

- Court-reviewed methodologies in several states, including Washington, California, Illinois, and Minnesota;
- Instructions in The Final Rule effective February 28, 2011 that outline revisions to the Federal DBE Program; and
- USDOT's "Tips for Goal-Setting in the Disadvantaged Business Enterprise (DBE) Program."

For details about ADOT's base figure for its overall DBE goals, see Chapter 6.

Base figure. Keen Independent's availability analysis indicates that the availability of current and potential DBEs for ADOT's FHWA-funded transportation contracts is 14.61 percent based on current availability information and analysis of FHWA-funded ADOT and local agency contracts awarded from July 2007 through June 2013.

Calculations to convert MBE/WBE availability to availability of current and potential DBEs.

Figure 5-7 provides the calculations to derive current/potential DBE availability when starting from MBE/WBE availability figures.

There were two groups of MBE/WBEs that Keen Independent did not count as potential DBEs when calculating the base figure:

- **Refinement a.** MBE/WBEs (not currently DBE-certified) that in the availability interviews reported having annual revenue over the most recent three years that exceeded the three-year average annual revenue limits for DBE certification for their subindustry. The first refinement reduced dollar-weighted availability by 1.92 percentage points.
- **Refinement b.** MBE/WBEs (not currently DBE-certified) that in recent years graduated from the DBE Program or had applied for DBE certification in Arizona and had been denied (based on information supplied by ADOT, City of Phoenix and City of Tucson). The second refinement reduced dollar-weighted availability by 1.24 percentage points.
- **Refinement c.** Keen Independent identified one white male-owned firm certified as a DBE in the availability analysis. Inclusion of this firm added 1.11 percentage points to the total availability for current and potential DBEs.

After subtracting 1.92 and 1.24 percentage points for the first two refinements, and adding 1.11 percentage points for the third refinement, dollar-weighted availability for current and potential DBEs was 14.61 percent (2.05 percentage points lower than MBE/WBE availability).

Figure 5-7.
Overall dollar-weighted availability estimates for current and potential DBEs for FHWA-funded contracts, July 2007-June 2013

Source:
Keen Independent availability analysis.

Race/ethnicity and gender	Dollar-weighted availability
Total MBE/WBE	16.66 %
Less MBE/WBEs that exceed revenue threshold	1.92
Less firms that graduated from the DBE Program or denied DBE certification in recent years	<u>1.24</u>
Subtotal	13.50 %
Plus white male-owned DBEs	<u>1.11</u>
Current and potential DBEs	14.61 %

Consideration of planned projects for FY 2015 through FY 2017. ADOT's 2015-2019 Five Year Construction Facilities Construction Program indicates that ADOT highway spending will include a mix of expansion, modernization and preservation projects in FY 2015 and FY 2016. By FY 2017, funding of all types of projects is expected to fall, but particularly for expansion and modernization projects.

Because of the change in project mix, there will be fewer large projects during the FY 2015 through FY 2017 time period compared with previous years, resulting in more limited subcontracting

opportunities. The geographic mix of work is anticipated to change as well, relatively more work in Central Arizona and less work in Southern Arizona.

Any changes in project mix could affect the base figure analysis:

- The availability analysis did not identify any current or potential DBEs available for the largest ADOT construction or engineering contracts (e.g., 0% DBE availability for those prime contracts). If there were relatively fewer large FHWA-funded prime contracts in the future, the base figure would be higher.
- Conversely, the base figure would be lower if the relative amount of work going to subcontractors on FHWA-funded contracts decreased in the next three fiscal years. (Overall, DBE availability is higher for subcontracts than prime contracts.)
- Any shift in the relative amount of engineering work could affect the base figure.
- Geographic shifts in work away from Southern Arizona could lower overall DBE availability estimates.

Many of the above factors suggest that the base figure would be higher given the changes in project mix in the next three fiscal years, while other factors indicate that the base figure would be lower. Some factors, including the amount of future subcontracting, are not readily quantifiable. In sum, Keen Independent's analysis of future projects identified somewhat offsetting effects on the base figure. No additional calculations are indicated at this time.

Additional steps before ADOT determines its overall DBE goal. ADOT must consider whether to make a “step-2” adjustment to the base figure as part of determining its overall DBE goal. Step-2 adjustments can be upward or downward, but there is no requirement for ADOT to make a step-2 adjustment as long as the agency can explain the factors considered and why no adjustment was warranted. Chapter 6 discusses factors that ADOT might consider in deciding whether to make a step-2 adjustment to the base figure.